NETGEAR Switches

Review From A Customer
WHAT IS OUR PRIMARY USE CASE?

AV over IP: Sending video and audio over the network. We use this solution as part of commercial AV large format displays, video walls, and high-capacity HD real-time displays and monitoring. In most applications, we are only using a couple of switches. Primarily, they are trunched. We have switches in different locations. E.g., we will have an endpoint inside of a classroom or with devices directly connected, but also with a main switching infrastructure and IDF. That is one of our use cases. Another use case is in our medical environment with some of the 10 Gigabit applications. We will have switches remotely located in an IDF in a data closet where we will have fiber run back to those switches. We have just one per operating room, but then we will have lags in-between switches in order to pass video from one switch to another in the event that we need to share video to other systems. We primarily have been using it in testing. It has been implemented by our audio-visual group on two projects now with the Crestron NVX AV over IP solution. One of those projects used two switches connected, and those have been stacked for port count. Then, the other implementation was just a single standalone switch.

HOW HAS IT HELPED MY ORGANIZATION?

That the switches can save a configuration or even import a configuration via CLI is largely beneficial. It's similar to our current workflow with Cisco switches, so it doesn't require much of a curve as far as implementing those features or implementing a configuration that way. It is straightforward. The ability to use the web interfaces is a big plus. For implementation, our company can quickly update firmware and not having to worry about licensing, which is a big deal. That's a big difference from some of the Cisco products as well as the Extreme products that for specific features require licensing. Not having that with the NETGEAR product is great. This aids us tremendously, as a company, to roll out these switches on multiple projects.
WHAT IS MOST VALUABLE?

The new IGMP Plus is a handy feature. There is no configuration out-of-the-box to be able to pass a multicast video. This is probably the most beneficial feature of it. The web interface is nice. The overall usability of the switch seems to be going well. One of the things I like most is the different variations in models. We have 24 SFPs and 24 copper ports (24 by 24). The flexibility of that switch is really good for our medical systems use case. The ease of use of these switches is very good because of the Cisco CLI. If you are familiar with CLI, then you can configure the switch that way. It also has a relatively straightforward web interface. Using the web interface is good for beginners or people who aren't familiar with Cisco CLI. However, having a common command line interface method is great for some of our more advanced guys who are familiar with it. The cost and ease of being able to roll out similar implementations of specific use cases is very beneficial. Plus, the ease of setup with the IGMP Plus feature to naturally support what we do on a daily basis is a huge benefit.

WHAT NEEDS IMPROVEMENT?

I have noticed one thing where we have taken up the multicast group interval time. We have needed to increase that setting. What we found happening were streams would stop until they were reestablished. By taking up multicast group interval time, it resolved that issue. There has been talk in the roadmap from my conversations with the NETGEAR product development guys about a more streamlined web interface that is more friendly to audio visual personnel, such as general technicians. It would be comparable to a package type web interface. That is one of the conversations that we have had that would be beneficial to having a more streamlined web interface. Something that we have also spoken about were VLAN profiles. E.g., preconfigured VLANs that would have a multicast traffic configuration applied where you can select a VLAN that is already preconfigured for standard 1 Gigabit IGMP based video, and then another VLAN that is configured for Dante audio. That is beneficial to where you can check port by port or VLAN by VLAN, enabling a specific protocol. It naturally sets QoS settings as well IGMP settings for that VLAN according to the type of traffic. Another thing that would be a big ask is audio video bridging (AVB). Being able to pass AVB traffic over these switches, that would be a huge add. There are not many switches out that support that. The GS728TP NETGEAR switches used to or still do support AVB, but it would be ideal if the 4300 Series could support it as well.

FOR HOW LONG HAVE I USED THE SOLUTION?

I have been using the 1 Gigabit series of the 4300 for eight months. I have also been using the 10 Gigabit version of the 4300 for almost a year.
WHAT DO I THINK ABOUT THE STABILITY OF THE SOLUTION?

The stability has been fantastic. I have zero failures. Video is passing as expected, so I haven't noticed any issues with the switches failing due to bandwidth issues. No news is good news on this front. If it works, that's great. Software Defined Video over Ethernet (SDVoE) installations seem to work well. I haven't noticed any failures there. The ease of use for SDVoE is great. The IGMP Plus feature comes with the switch configured out-of-the-box. To be able to pass that traffic, that is a big plus for AV installations. I haven't had any issues with the 10 Gigabit switching. So, it works great. I'm able to pass around 18 gigs worth of signal over Ethernet ports and SFPs without issue. No news is good news. If it works, that's great. Maintenance is typically done through our service department.

WHAT DO I THINK ABOUT THE SCALABILITY OF THE SOLUTION?

Its scalability is one of the big pluses. There are different models of switches in the M4300 Series. The modular based switch is typically used as a spine switch all the way down to 48 Port 10 Gigabit switches. The different models of switches with various sizes and form factors make this switch line very mobile. We do have plans to increase usage for these switches in our organization. Typically, commissioning engineers are standing these up. These are our engineers who go to a site with systems in order to commission. They range in experience. For some of our newer guys, we put them on more simplified projects, then for some of our more experienced guys, we put them on the more complex, larger scale projects.

HOW ARE CUSTOMER SERVICE AND TECHNICAL SUPPORT?

The technical support is much better than it was. That used to be one of the pain points. It took a lot of effort to get through to support and be able to get the support that we needed. Our relationship has been getting better with NETGEAR support.

WHICH SOLUTION DID I USE PREVIOUSLY AND WHY DID I SWITCH?

We are typically a Cisco house. We still use Cisco quite a bit. Our in-house network group primarily supports Cisco. However, especially with these switches utilizing Cisco CLI, it is easy for us to cross implement. We chose NETGEAR due to the form factor, scalability, and price. It was a combination of those features put together as well as their focus on audio-visual solutions. Their initiative to make switches work well in an audio-visual environment, that's what we do. So, it makes sense for us to utilize a more cost-effective switch that is specialized to our type of traffic.
HOW WAS THE INITIAL SETUP?

The initial setup for these switches was very straightforward. Being able to navigate through the web interface is quite easy. Everything makes sense. The flow from left to right in the web interface makes sense. There are a couple things that were tricky, like setting up DHCP scopes. That wasn't very self-explanatory, so it required looking at a manual. Some added information like little help popups to guide or direct how to set up those settings would help. A little streamlined interface on the homepage with a couple of suggestions would be beneficial, such as: Enabling IGMP, which already has a default with the IGMP Plus as a feature. Setting up a DHCP on specific VLANs.

WHAT ABOUT THE IMPLEMENTATION TEAM?

On average, we're able to configure the switches within 30 minutes. That is for most of our use cases, which are streamlined and straightforward. As they get more complex, that is where we are trying to segment more traffic to different VLANs and create DHCP scopes inside of those VLAN. Then, it takes a couple of hours. For most of our systems, we can be setup within 30 minutes or less. As a company, we are working on creating a uniform implementation strategy. We're working on implementing a procedure for different types of projects to have a quick little start guide. You do not need to be an expert, but you do need to know your terminology to understand basic things, whether it is IGMP or how to set up a DHCP scope. You need to understand what those are in order to set the switch up.

WHAT WAS OUR ROI?

We haven't been implementing these switches a ton. Our ROI isn’t much at the moment, but the solution is something that we're looking to utilize more often.

WHAT'S MY EXPERIENCE WITH PRICING, SETUP COST, AND LICENSING?

The price to performance of the switches is excellent. The price point of these switches is great compared to big brands, like Cisco or Extreme Networks, with approximately the same functionality. Licensing is always a hassle and a pain point. We find the cost of NETGEAR hardware and additional services to be below average compared to the top tier. There are still cheaper products out there, but they lack in functionality.
WHICH OTHER SOLUTIONS DID I EVALUATE?

We have used Extreme, Cisco, Pakedge, Luxul, and Aurora switches. Though, we typically use Cisco and Extreme. NETGEAR won us over with its scalability, pricing, and specific implementations within AV switching. We're testing it up against Cisco Catalyst and Extreme Networks 440 and 700 products without having any issues. We can pass the same video over these switches, though the functionality settings are a bit different. Some of the settings are not named specifically the same. So, there is a bit of a learning curve. However, we're able to get video to pass properly functionality-wise.

WHAT OTHER ADVICE DO I HAVE?

We're getting into maintaining our network more. From a service standpoint, we do maintain networks. On rare occasions, we have uplinks to clients' networks where a client starts to maintain networks. Typically, if that is the case. It's not part of their workflow to upgrade firmware or make any changes to switches. They just like to monitor the status of the switches. It is valuable for the AV use case. Test it in the environment that you're looking to utilize these switches, then create a process and procedure going forward on how to implement. Fortunately, there is not much of a process. That would be my suggestion. I would rate them highly. I would go with a nine (out of 10).

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